XL.—*On some new Species of Araneidea.*

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[Plate XVII.]

A small collection of spiders, chiefly of the genus *Erigone* (*Neriëne* and *Walckenaëra*, Bl.), lately received from Graf Eugen v. Keyserling of Glogau, Silesia, contained four species which appear to me to be undescribed. These, together with another very remarkable one of the same group, sent to me from Lisbon by Mr. H. O. Forbes, are described and figured in the present paper. Those received from Count Keyserling were found in different localities in Germany; and among them were also examples of the following known species:—

Dictyna viridissima, *Walck.*, Orzova.
Neriëne exhilarans, *Cambr.*, Munich.
—— livida, *Bl.*, Glogau.
—— cornuta, *Bl.*, Orzova &c.
—— graminicola, *Sund.*, Munich.
—— rufipes, *Sund.*, Lüvland &c.
—— dentipalpis, *Wid.*, loc. ?
—— isabellina, *C. L. Koch*, Dux.
—— fuscipalpis, *C. L. K.*, Glogau.
—— rubripes, *Bl.*, Glogau.
Bathyphantes brevipalpis, *Menge*, Munich.
Walckenaëra Simonii, *Cambr.*, Munich.
—— elongata, *Wid.*, Munich.
Walckenaëra cucullata, *C. L. Koch*, Munich and Glogau.
—— brevis, *Wid.*, Munich.
—— pusilla, *Wid.*, Munich.
—— bifrons, *Bl.*, Orzova.
—— prominula, *Cambr.*, Glogau.
—— perforata, *Thor.*, Orzova.
—— cristata, *Bl.*, loc.?
—— pallens, *Cambr.*, Munich.
—— altifrons, *Cambr.*, Glogau and Munich.
—— antica, *Wid.*, Danzig.
Linyphia decens, *Cambr.*, loc. ?
—— oblivia, *Cambr.*, Munich and Glogau.
—— pallida, *Cambr.*, Glogau.
—— nigrina, *Sund.*, Glogau.

The following are the species supposed to be new:—

Neriëne rasa, sp. n., Dux, p. 343, Pl. XVII. fig. 1.
—— Keyserlingii, sp. n., loc. ?, p. 344, Pl. XVII. fig. 2.
—— iracunda, sp. n., Lüvland, p. 346, Pl. XVII. fig. 3.
Walckenaëra nasuta, sp. n., Lisbon, p. 347, Pl. XVII. fig. 4.
—— congenera, sp. n., Munich, p. 348, Pl. XVII. fig. 5.

Fam. **Theridiides.**

Gen. Neriëne, Bl.

Neriëne rasa, sp. n. (Pl. XVII. fig. 1.)

Adult male, length very nearly $\frac{1}{9}$ of an inch.

The colour of the *cephalothorax*, *falces*, *maxillæ*, *labium*, and *sternum* is a clear but darkish yellow-brown; the *legs* and *palpi* are of a paler hue, and the abdomen is blackish olive-brown. The general convexity of the cephalothorax is somewhat depressed; but the caput is well rounded on all sides, and the profile of the clypeus (which considerably exceeds in height half that of the facial space) continues the curve of the profile of the occiput; the profile line behind the occiput exhibits a very slight depression; on the caput and clypeus are some prominent hairs.

The *eyes* are small, and, excepting the fore-centrals, which are very small, are of equal size; those of the hind-central pair are considerably nearer together than each is to the hind-lateral eye on its side, the interval being no more than an eye's diameter, which is also the same interval as that which separates them from the fore-centrals; those of each lateral pair are placed obliquely on a tubercle; the fore-centrals are dark, indistinct, and contiguous to each other.

The *legs* are of tolerable length and rather slender; their armature had been almost entirely denuded, but it appears to have consisted of hairs only.

The *palpi* are short; the radial joint is stronger, but scarcely longer, than the cubital, both being very short; the former spreads out a little in front, but has no projection or apophysis; it is furnished with some bristly hairs, the longest and strongest of which are on the outer side; the digital joint is of moderate size, and has a strong lobe or prominence towards its hinder extremity on the outer side; the palpal organs are moderately complex; at their base on the outer side is a prominent, almost circularly curved, corneous process, and at their extremity are two or three small, blunt, projecting, corneous points.

The *falces* are long, strong, and greatly inclined backwards to the labium; they are also a little divergent at their extremities.

The *abdomen* is of tolerable size; its shape is a regular oval, its surface glossy and very sparingly clothed with hairs; and it projects a little over the base of the thorax.

This spider is allied to *Neriëne Huthwaitii*, Cambr., which it resembles very much in general colouring and appearance; but it may easily be distinguished by the much shorter radial joint and much larger digital joint of the palpus; the structure also of the palpal organs is entirely different.

A single example was sent to me for examination by Count Keyserling, by whom it was found at Dux.

Neriëne Keyserlingii, sp. n. (Pl. XVII. fig. 2.)

Adult female, length $\frac{1}{5}$ of an inch.

The whole of the fore part of this spider, including the legs and palpi (which are a little the palest), is of a clear yellow colour; and the abdomen is pale straw-coloured. The *cephalo-*

thorax is of a rather flattened form; the profile line forms a slightly curved slope to the eyes, the depression behind the occiput being exceedingly slight. The normal grooves and indentations are fairly marked, and are also indicated by converging lines of a dusky hue.

The *eyes* are of tolerable size and not very unequal; they are rather closely grouped; those of the posterior row are equidistant from each other, being separated by a central-eye's diameter, each of the central eyes being also separated by a similar space from the fore-central eye opposite to it. Those of each lateral pair are contiguous to each other, and are seated obliquely on a black tubercle; those of the fore-central pair are on a large black spot, and are separated from each other by nearly half a diameter.

The *legs* are moderate in length and strength (4, 1, 2, 3), furnished with hairs, and a very few slender prominent bristles.

The *falces* are long, strong, very prominent towards their base in front, a little divergent, and armed with strong sharp teeth on the inner sides, a row of five (the strongest) being placed along the outer edge, and three along the inner edge of the groove in which the fang lies when at rest. On the outer sides in front are some minute piliferous tubercles arranged in two or three longitudinal lines.

The *maxillæ* are long, strong, somewhat obtusely pointed on the inner extremities, and inclined towards the *labium*, which is of a semicircular form.

The *abdomen* is oval, broadest behind, and projects over the base of the cephalothorax; it is of a pale straw-yellow colour, thinly clothed with fine hairs, and marked with four small, round, red-brown, impressed spots near the middle of the upperside, forming a trapezoid, whose posterior is longer than the anterior side; a sooty-black broken stripe bisects the upperside in a longitudinal direction, the hinder part being formed of two elongate arrow-head markings, following each other in close contact, the posterior one merging in a large sooty-black patch some little distance above the spinners. It is probable that in a series of examples some variations in this pattern would be exhibited. The genital aperture is small and characteristic in form, but has no prominent process connected with it; just in front of the spinners is a curved lip-like fold in the integument, having every appearance of being the aperture leading to one or two spiracles (breathing-organs).

Two examples of this fine and distinct species were comprised in the collection of spiders received for examination from Count Keyserling, by whom they were found in Germany; but the precise locality is unknown to me.

Neriëne iracunda, sp. n. (Pl. XVII. fig. 3.)

Adult male, length slightly over 1 line.

The *cephalothorax* is of a dark yellow-brown colour, and of a somewhat oblong-oval form, broad at the fore part, and the lateral constriction on the margins, at the caput, exceedingly slight. The profile line forms a tolerably even, though very slight curve; the ocular area slopes forwards; and the clypeus, which projects a little, is less in height than half that of the facial space.

The *eyes* are all seated on tubercles; those of the lateral pairs rather strong; they are not very large or greatly different in size, those of the anterior (or fore-central) pair, which are a little the smallest, are separated by a small but distinct interval, those of the hind-central pair are divided by rather less than a diameter's interval, that which separates each of them from the hind-lateral eye on its side being about equal to a diameter. The curves of the two rows of eyes are as nearly as possible equal, but directed in opposite directions, and enclosing a transverse oval space; those of each lateral pair are placed very slightly obliquely.

The *legs* are rather long, slender, 4, 1, 2, 3, furnished with hairs, and one or two erect bristles only, and of a pale orange-yellow colour.

The *palpi* are short; the digital and radial joints brown, the rest similar in colour to the legs. The cubital and radial joints are very short; the latter is the strongest and has its fore extremity on the upperside produced, but very slightly, into a somewhat pointed termination; and there is also a prominent point on the outer side: the digital joint is of moderate size; it has a small, blunt, somewhat tooth-like projection at its base; and on its outer side is a prominent, somewhat elevated subangular lobe. The palpal organs are complex and well developed, but present no very noticeable processes.

The *falces* are powerful, prominent near their base in front, divergent, and greatly cut away on the inner side of their fore half—so far as I could see, destitute of teeth, excepting a bluntish one at the extreme inner point near the insertion of the fang. The outer sides in front are furnished with minute piliferous tubercles. The colour of the falces is similar to that of the cephalothorax.

The *maxillæ* are like the falces in colour; they are strong, moderately long, rounded on their outer sides and at the extremities, and inclined towards the *labium*, which is short, somewhat roundly truncated at the apex, and of a dark black-brown hue.

The *sternum* is similar to the labium in colour.

The *abdomen* is narrow oviform, glossy and black, and thinly clothed with hairs.

A single example of this spider, which is allied to *Neriëne subtilis*, *N. conigera*, and *N. innotabilis*, Cambr., was received from Count Keyserling, by whom it was found in Lüvland.

Gen. WALCKENAËRA, Bl.

Walckenaëra nasuta, sp. n. (Pl. XVII. fig. 4.)

Adult male, length $\frac{1}{14}$ of an inch.

The cephalothorax, legs, palpi, and falces are of a light rather orange-yellow colour, the tibiæ, tarsi, and metatarsi of the legs being a little the palest, and the caput slightly suffused towards the fore part on the upperside with a dusky brownish hue. The caput is elevated, and the fore extremity of the upperside projects forwards in a somewhat curved and tapering form, terminating in a round knob connected with the main portion by a narrow neck-like constriction, and giving it a very nose-like appearance; the fore part of the caput, as well as the knob, is furnished pretty thickly with hairs; there are also a few shorter ones along the upperside of the caput, directed slightly backwards. The thorax is a little gibbous about the middle of the upperside.

The *eyes* are small, seated on black spots, and in the usual four pairs; the lateral pairs are one on each side, towards the fore extremity of the caput, at about the thoracic level; the fore-central pair is in front, between and on a level with the laterals; the eyes of these three pairs are respectively contiguous to each other, while those of the hind-central pair are wide apart, one on each side of the produced part of caput, a little behind the neck or constriction.

The *legs* are slender, not very long, furnished with ordinary hairs, and a few erect ones on the upperside of the tibiæ and metatarsi.

The *palpi* are moderately long; the cubital joint is rather long and slightly clavate; the radial joint is short, but has its fore extremity produced into a long, tapering, twisted, sharp-pointed, rather prominent apophysis. The length of this joint and its apophysis is about equal to that of the cubital joint. The digital joint is of moderate size; and the palpal organs are prominent and rather complex, but have no very remarkable processes.

The *abdomen* is oviform; it projects but slightly over the base of the cephalothorax, and is jet-black, thinly clothed with hairs.

A single example, in excellent condition, of this very remarkable little spider was kindly sent to me, from Lisbon, with numerous other spiders, by Mr. H. O. Forbes.

Walckenaëra congenera, sp. n. (Pl. XVII. fig. 5.)

Adult male, length 1 line.

The *cephalothorax* is of a deep rich black-brown colour, the *legs* orange, and the *abdomen* jet-black. The caput is elevated into a moderate-sized, well-rounded eminence; the height of the clypeus is a little over half that of the facial space; it slopes forwards following the same line as that of the fore profile of the eminence on the caput. The upper (or hind-central) pair of eyes are seated on the fore part of the upperside of the eminence, and are separated by an eye's diameter.

The *legs* are slender, of moderate length, 1, 4, 2, 3, and furnished with hairs only; if any other armature was ever present it had been rubbed off before the example came to hand.

The *palpi* are moderately long, slender, and of a yellow colour, excepting the digital joint, which is dark yellow-brown. The cubital joint is slightly clavate and bent downwards; the radial joint is stronger than the cubital, and has its fore extremity, on the upperside, produced into a long, somewhat tapering, and curved apophysis, whose broadly obtuse point is directed outwards across the middle of the digital joint, and a little turned upwards on the lower edge; within the curvature of this apophysis is a strong, not very long, obtuse, prominent process also directed outwards; and in front of it (though it was difficult to see its exact origin) is a small, sharp-pointed, spine-like projection; numerous bristly hairs issue from the outer side of the radial joint, chiefly towards its hinder part; the digital joint is oval and of tolerable size; the palpal organs are well developed and complex; they are closely encircled near the middle with a black spine; and a more slender one coiled in a circular form is situated at their extremity.

The *maxillæ* are of an olive-brown hue, the *labium* blackish brown; the *sternum* is glossy and black-brown; and the *abdomen*, which is also glossy, is jet-black, rather large, considerably convex above, and very sparingly clothed with hairs.

This spider is closely allied to *Walckenaëra prægracilis*, Cambr., but is larger; the legs are also shorter; the eminence on the caput is of a more rounded form, and less sloping in profile both before and behind; the two eyes seated on its summit are also nearer together. The *palpi* are somewhat similar to those of that species; but the radial apophysis is shorter, stouter, and more obtuse at its extremity, the process also within its curvature is straighter, shorter, and stouter.

It is also allied to *Walckenaëra erythropus*, Westr., though the palpi, as well as the eminence on the caput of this last species, differ in structure, the digital joint being larger, the radial apophysis less strong at its extremity, the process within its curvature longer, more prominently turned upwards, and furnished with a cusp-like point at its end.

A single example received for examination from Count Keyserling, by whom it was found near Munich.

EXPLANATION OF PLATE XVII.

Fig. 1. *Nerïëne rasa*, sp. n., ♂, p. 343. Dux. *a*, profile, without legs or palpi; *b*, front view of eyes and falces; *c*, left palpus, sideways, above and a little underneath in front; *d*, curved process at base on outer side of palpal organs, from in front; *e*, natural length of spider.

Fig. 2. *Neriëne Keyserlingii*, sp. n., ♀, p. 344. Germany. *a*, profile, without legs; *b*, front view of eyes and falces; *c*, hinder extremity of abdomen, from underneath; *d*, same as *c*, in profile; *x*, fold in front of spinners, supposed to conceal spiracular orifices; *y*, the same as *x*, in profile; *e*, genital aperture; *f*, natural length of spider.

Fig. 3. *Neriëne iracunda*, sp. n., ♂, p. 346. Liivland. *a*, profile, without legs or palpi; *b*, front view of eyes and falces; *c*, left palpus, from outer side, rather in front; *d*, ditto, in front, rather on inner side; *e*, natural length of spider.

Fig. 4. *Walckenaëra nasuta*, sp. n., ♂, p. 347. Lisbon. *a*, right palpus on outer side; *b*, humeral, cubital, and radial joints of left palpus, from in front; *c*, profile, without legs or palpi; *d*, natural length of spider.

Fig. 5. *Walckenaëra congenera*, sp. n., ♂ (profile, without legs or palpi), p. 348. Munich. *a*, caput, from above and behind; *b*, left palpus, from above and rather in front; *c*, radial joint of ditto; *d*, natural length of spider.

XLI.—*Descriptions of new Species of Lepidoptera from Japan.* By Arthur G. Butler, F.L.S., F.Z.S., &c.

The moths described in the present paper were mostly presented to the British Museum by Mr. Henry Pryer of Yokohama, who collected them in that locality. Amongst them are many species of great interest, exhibiting marvellous resemblance to well-known European types, whilst one or two show greater similarity to forms occurring in the New World.